

REMARKS

The specification and claims 15, 17-22, and 34-35 are amended herein. Claims 14-39 are pending in the captioned case. Further examination and reconsideration of the presently claimed application are respectfully requested.

Allowed and Allowable Subject Matter

Applicants acknowledged and appreciate the Examiner's allowance of claims 27-39. In addition, claims 24-26 were objected to for being dependent on a rejected base claim but would be allowable, if rewritten to include all limitations of the base claim and any intervening claims. While Applicants appreciate and agree with the indication that claims 24-26 contain allowable subject matter, it is nonetheless asserted that all pending claims are patentably distinct over the cited art as set forth in more detail below.

Objection to the Claims

Objections were lodged against claims 17, 19, and 20 for informalities. In response thereto, claims 17, 19, and 20 are amended in a manner believed to obviate the objections. Accordingly, removal of the objections is respectfully requested.

Section 103 Rejection

Claims 14, 15, 17, 18, 20, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,608,771 to Steigerwald (hereinafter "Steigerwald"). Claims 16, 19, 20, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Steigerwald in view of U.S. Patent No. 6,674,836 to Harada (hereinafter "Harada").

To establish a case of *prima facie* obviousness of a claimed invention, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Second, there must be a

reasonable expectation of success. As stated in MPEP 2143.01, the fact that references can be hypothetically combined or modified is not sufficient to establish a *prima facie* case of obviousness. See *In re Mills*, 916 F.2d. 680 (Fed. Cir. 1990). Finally, the prior art references must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d. 981 (CCPA 1974); MPEP 2143.03. Specifically, “all words in a claim must be considered when judging the patentability of that claim against the prior art.” *In re Wilson* 424 F.2d., 1382 (CCPA 1970).

Moreover, in response to the recent U.S. Supreme Court decision in *KSR Int'l Co. v. Teleflex, Inc.* (U.S. 2007), new guidelines were set forth for examining obviousness under 35 U.S.C. § 103. The U.S. Supreme Court reaffirmed the *Graham* factors and, while not totally rejecting the “teachings, suggestion, or motivation” test, the Court appears to now require higher scrutiny on the part of the U.S. Patent & Trademark Office. In accordance with the recently submitted guidelines, it is “now necessary to identify the reason” why a person of ordinary skill in the art would have combined the prior art elements, or at least describe the pertinence of the prior art elements set forth in the cited disclosure, in the manner presently claimed. Moreover, even if combined, the *Graham* factors require that a determination of the differences between the combined prior art and the claims at issue is needed. Using these standards, Applicants contend that the Office Action fails to note substantial differences between the references and the claims at issue. Some distinctive features of the presently pending claims are set forth in more detail below.

Steigerwald and Harada, both alone and in combination, fail to provide teaching or suggestion for a conductor mounted to a stationary part of a computer tomograph (CT) system by a support rod. The “conductor” recited in present claim 14 is one which extends along a straight line in a rotating first plane, and an arcuate line in another plane perpendicular to the first plane along a rotational path in which the rotating part of the CT system rotates. Embodiments of the claimed conductor are illustrated in the cross-sectional views of Figs. 5-7 and the side views of Figs. 9-10. As shown in Figs. 5-7, conductor 9 is mounted to the stationary part of the CT system by support rod 23. Multiple conductors and support rods are shown in Figs. 6-7.

The conductor arrangement described in the presently claimed case (i.e., one or more conductors 9 mounted on a stationary part of the CT system by one or more support rods 23) provides many advantages over conventional CT systems. As noted in the specification, the conductor arrangement replaces the ferrite core and primary winding typically used in the stator (i.e., stationary part) of the CT system. This reduces the total weight of the presently claimed CT system, as well as the cost associated with the system (Substitute Specification at pp. 1-2, 4-5).

Steigerwald discloses a conventional CT system (e.g., Figs. 1, 2) including a rotor core or rotating part (12, 22), and a stator core or stationary part (14, 24). The ferrite cores of the stator and rotor are disclosed as having a C-shaped or E-shaped cross-section, forming one or more winding slots (17, 27, 29). A primary winding (18, 28) is wound circumferentially around the stator within the winding slot of the stator core. Likewise, a secondary winding (20, 30) is wound circumferentially around the rotor within the winding slot of the rotor core (Steigerwald at col. 2, lines 23-50; Figs. 1-2).

Contrary to claim 14, Steigerwald fails to provide teaching or suggestion for a conductor, which is mounted to a stationary part of the CT system by a support rod. Instead of the claimed conductor and support rod arrangement, Steigerwald provides a conventional stator having a ferrite core and a primary winding. This increases the weight and cost of the CT system, as compared to the presently claimed conductor and support rod arrangement.

Statements in the Office Action admit that “Steigerwald does not specifically disclose that the conductor is mounted to the stationary part via support rods” (Office Action at p. 3). Applicants agree. Further statements suggest “that the conductor 28 is not floating in space but is fixed to the stationary part...” (Office Action at p. 4). Again, Applicant’s agree. Primary winding 28 (Fig. 2) is not floating in space. As set forth in column 2, lines 32-35 and 45-50 and illustrated in Figs. 1-2 of Steigerwald, primary winding 28 (the alleged “conductor”) is wound circumferentially around the stator within the winding slots 27,29 of the stator core 24. Circumferential winding of the primary winding 28 “fixes” the primary winding 28 within the winding slot of the stationary part 24.

Further statements in the Office Action allege that it “would have been obvious to one of ordinary skill in the art at the time the invention was made for Steigerwald to support the conductor arrangement by support rods as a known method of fixing a conductor to a stationary portion of a rotating gantry in order to maintain alignment, absent any showing of critically or unexpected results” (Office Action at p. 4). This allegation is hereby respectfully traversed.

Contrary to the allegations made in the Office Action, the conductor and support rod arrangement recited in claim 14 is not “a known method of fixing a conductor to a stationary portion of a rotating gantry.” For example, and as noted on pages 1-2 of the specification, known CT systems typically comprise a stator and a rotor, each having a primary/secondary winding, which is wound around the stator/rotor within a groove or slot formed within the stator/rotor core. The CT system described by Steigerwald includes such an arrangement, and is therefore, in line with known CT systems. Absent evidence to the contrary, Applicants assert that the claimed conductor arrangement is not “a known method of fixing a conductor to a stationary portion of a rotating gantry.”

In addition to providing a unique method for fixing a conductor to a stationary portion of a CT system, the claimed conductor and support rod arrangement provides many advantages/unexpected results over conventional CT systems, such as those disclosed by Steigerwald. By replacing the stator core and primary winding, the claimed conductor and support rod arrangement advantageously reduces the weight and cost associated with the CT machine. In addition, the claimed conductor and support rod arrangement eliminates the need for tight mechanical tolerances, such as the tolerances for the air gap required between the rotating and stationary parts of conventional CT machines. Steigerwald notes that tight tolerances for the air gap are required to minimize leakage inductance between the primary and secondary windings (Steigerwald at col. 2, lines 36-40), but provides no means or desirability for a design, which eliminates the need for such tight tolerances. The claimed conductor and support rod arrangement, thus, provides critical and unexpected results over the teachings of Steigerwald.

Steigerwald fails to provide teachings, suggestion, motivation or even desirability for the conductor recited in present claim 14. As a consequence, Steigerwald cannot be relied upon to render all limitations of claim 14 obvious.

Harada is not cited against present claim 14. However, Applicants assert that Harada cannot be combined with Steigerwald to overcome the deficiencies therein, since Harada also fails to provide teaching, suggestion, or motivation for a conductor as presently claimed.

For at least the reasons set forth above, Applicants believe independent claim 14 and claims dependent therefrom are patentable over the cited art. Accordingly, removal of this rejection is respectfully requested.

CONCLUSION

The present amendment and response is believed to be a complete response to the issues raised in the Office Action mailed January 19, 2009. In view of the amendments and remarks herein, Applicants assert that pending claims 14-39 are in condition for allowance. If the Examiner has any questions, comments, or suggestions, the undersigned attorney earnestly requests a telephone conference.

No fees are required for filing this amendment; however, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment, to Daffer McDaniel, LLP Deposit Account No. 50-3268.

Respectfully submitted,

/Kevin L. Daffer/

Kevin L. Daffer

Reg. No. 34,146

Attorney for Applicant(s)

Customer No. 35617
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